

AMENDMENTS TO THE CLAIMS

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1. (ORIGINAL) A method of immobilizing a polymer hydrogel on the surface of a polymer substrate, whereby a composition containing at least one hydrogel-forming polymer and at least one non-toxic photoinitiator compound is applied to the surface of a polymer substrate to form a hydrogel layer at least in areas, and then the hydrogel layer is subjected to treatment with electromagnetic radiation, so that the hydrogel is immobilized on the surface of the polymer substrate, forming a hydrogel layer.

2. (ORIGINAL) The method in Claim 1, whereby electromagnetic radiation in the ultraviolet to visible range of the spectrum, preferably in the range from 170 nm to 600 nm, is used for immobilization.

3. (CURRENTLY AMENDED) The method in Claim 1 ~~or 2~~, whereby the hydrogel-forming polymer is polyvinylpyrrolidone-based, polyalkylene-glycol-based, polyvinyl-alcohol-based, polyethylene-imine-based or polyvinyl-amine-based.

4. (ORIGINAL) The method in Claim 3, whereby the polyvinylpyrrolidone-based polymer contains copolymers containing polyvinylpyrrolidone, derivatives of polyvinylpyrrolidone and their copolymers.

5. (CURRENTLY AMENDED) The method in ~~one of~~ Claims 1 ~~to~~ 4, whereby the polymer substrate is made of a polymer material chosen from polyethylene, polypropylene, polyvinyl chloride, polycarbonate, SEBS or polyurethane or mixtures thereof.

6. (CURRENTLY AMENDED) The method in ~~one of~~ Claims 1 ~~to~~ 5, whereby the polymer substrate is a dialyser, hose, catheter, stent or urinary catheter or at least part of one.

7. (CURRENTLY AMENDED) The method in ~~one of Claims 1 to 6~~, whereby the non-toxic photoinitiator compound is chosen from the group composed of flavins, flavones, flavonoids and their derivatives, as well as nicotinic acid amide and its derivatives and thioxanthone.
8. (ORIGINAL) The method in Claim 7, whereby the initiator compound is riboflavin, morin, rutin or a mixture thereof.
9. (ORIGINAL) The method in Claim 7, whereby the initiator compound is nicotinic acid amide.
10. (ORIGINAL) The method in Claim 7, whereby the initiator compound is thioxanthone.
11. (ORIGINAL) A polymer substrate that has a polymer hydrogel layer immobilized, at least in areas on its surface, whereby the hydrogel layer also contains at least one non-toxic photoinitiator compound.
12. (ORIGINAL) The polymer substrate in Claim 11, whereby the non-toxic photoinitiator compound is chosen from the group composed of flavins, flavones, flavonoids and their derivatives, as well as nicotinic acid and its derivatives and thioxanthone.
13. (ORIGINAL) The polymer substrate in Claim 12, whereby the polymer substrate is made of a polymer material, chosen from polyethylene, polypropylene, polyvinyl chloride, polycarbonate, SEBS or polyurethane or mixtures thereof.
14. (CURRENTLY AMENDED) The polymer substrate in Claim ~~12 or 13~~, whereby the polymer substrate is a dialyser, hose, catheter, stent or urinary catheter or at least part of one.

15. (NEW) The method in Claim 2, whereby:

the hydrogel-forming polymer is polyvinylpyrrolidone-based, polyalkylene-glycol-based, polyvinyl-alcohol-based, polyethylene-imine-based or polyvinyl-amine-based;

the polyvinylpyrrolidone-based polymer contains copolymers containing polyvinylpyrrolidone, derivatives of polyvinylpyrrolidone and their copolymers;

the polymer substrate is made of a polymer material chosen from polyethylene, polypropylene, polyvinyl chloride, polycarbonate, SEBS or polyurethane or mixtures thereof;

the polymer substrate is a dialyser, hose, catheter, stent or urinary catheter or at least part of one;

the non-toxic photoinitiator compound is chosen from the group composed of flavins, flavones, flavonoids and their derivatives, as well as nicotinic acid amide and its derivatives and thioxanthone.

16. (NEW) The method in Claim 15, whereby the initiator compound is riboflavin, morin, rutin or a mixture thereof.

17. (NEW) The method in Claim 15, whereby the initiator compound is nicotinic acid amide.

18. (NEW) The method in Claim 15, whereby the initiator compound is thioxanthone.

19. (NEW) The polymer substrate in Claim 13, whereby the polymer substrate is a dialyser, hose, catheter, stent or urinary catheter or at least part of one.